# AESS VISION 202020

#### **Member Services Smart Objectives**

#### Wolfgang Koch, Leo Ligthart

Mike Wicks, Federico Lombardi, Jason Williams, Lorenzo Lo Monte, Fabiola Colone

April 27, 2018

**Renaissance Oklahoma City** 



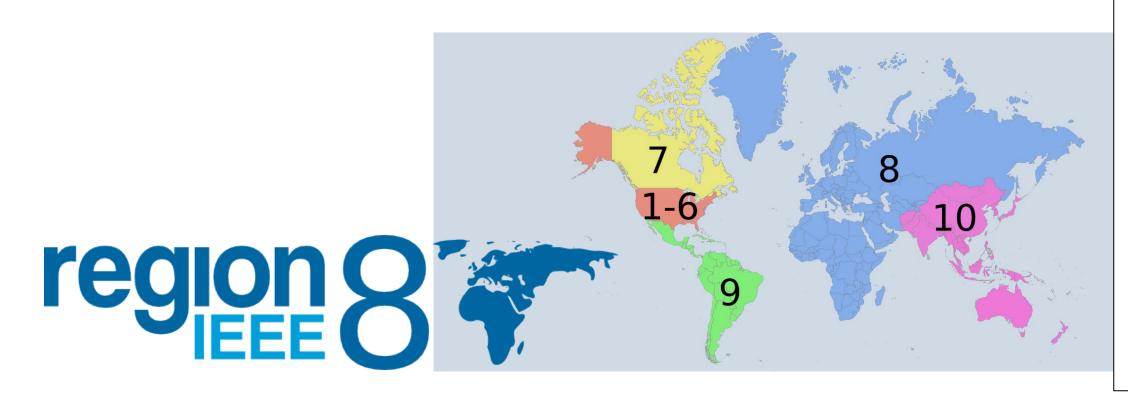


#### Member Services 3-Year Goals

- 1. Maintain close liaison with Chapters and engage chapter members in AESS events and activities
- 2. Promote formation of AES-Joint Society Chapters where no chapter exists
- 3. If financially feasible, hold a Chapter Summit every three years in conjunction with the Sections Congress meeting
- 4. Promote AES chapter participation in organizing conferences
- 5. Grow AESS membership by 1% per year
- 6. Increase member participation in AESS events
- 7. Reduce the number of member drops each year
- 8. Recruit student members to full membership upon graduation
- 9. Offer assistance to members for elevating to the next grade



## **Objective Motivation: Where are our resources? Exploit, e.g., the vast potential of region 8!**







# **Objective 1**

#### Strengthen links between AESS BoG and the AESS Bodies

- **S** Biannual EU-AESS face-to-face chapter chairs meetings
- M Biannual survey / planning of EU-AESS chapter activities Updated list of chapter contact data and ping them.
- A Assigned to: Leo, Wolfgang
- **R** 1: maintain liaison, 4: promote participation in organizing conferences, 5: grow membership, 7: reduce drops
- $\mathbf{T}$  BoG Autumn 2018 Meeting, to be held in Rome

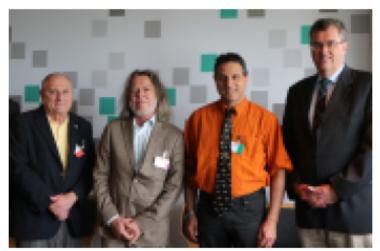


### **Objective Motivation: IEEE AESS Focus Day Navigation in GNSS-degraded Environments**

#### IEEE Focus Day: Wie kann die Navigationsfähigkeit der Bundeswehr sichergestellt werden?

Das Germany Chapter der IEEE Aerospace and Electronic Systems Society, einer global agierenden ingenieurwissenschaftlichen Gesellschaft für vielfältige Aspekte der Systemtechnologie, veranstaltete am 6. Juni 2017 im Fraunhofer FKIE, Wachtberg, einen Focus Day unter der Schirmherrschaft des Verteidigungsministeriums. Die zentrale Frage war: Wie ist die Schlüsselfähigkeit Navigation auch dann zu gewährleisten, wenn satellitengestützte Systeme in ihrer Funktion beeinträchtigt, gestört oder getäuscht werden?

TRDir Matthias Steil, im BMVg für derartige Fragen zuständig, unterstrich durch plakative Beispiele, wie entscheidend robuste Navi-



Auf Einladung von Dr. Wolfgang Koch (r.) am 6. Juni zu Gast am FKIE (v.l.): Dr. George T. Schmidt, IEEE Life Fellow, Prof. Dr. Gert F. Trommer, Karlsruhe Institute of Techology (KIT), und TRDir Matthias Steil (BMVg).

Karlsruhe Institute of Technology. Sie wurden

June 9, 2017 under the auspices of the German MoD

#### George Schmidt DL

lecturing in Germany, Switzerland, Netherlands





# **Objective 2**

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**Exploit Distinguished Lectures for Serving AESS Members** 

- **S** Encourage tours of Distinguished Lectures to non-US regions via IEEE AESS Focus Days: More visibility of local chapters.
- M Swiss/German/Dutch/Polish: combined with BoG Meeting
- A Assigned to: Wolfgang, H. Wipf, M. Bentham, W. Krzysztofik
- R 2: promote AES-joint society chapters, 5: grow membership,
  6: increase member participation, 8: recruit students
- T around the BoG Autumn Meeting, Rome, September 2018

## **Objective Motivation: Honoring Hülsmeyer IEEE Historic Milestone in Cologne, Germany**

Die Oberbürgermeisterin	*	Stadt Köln
670/4	Start Köln - Amt für Landschaftspflege und Grünflächen Verlin Percet Bierr 2 50678 Kön	Amt für Landschaftapflege und Grünflächen Untere Jagd- und Flächereibehörde Stadhaus Deutz Westgehäude Willy-Brand-Fläuz 2, 50378 Köln Auskunf Frau Arends, Zimmer 11F43 Teiefon 0221 221-23934, Teiden 0221 221-26589713 E-Mail grunnflaechenamitägstad-kolen de Internet ww. stadh-kolen hol
Engineers History Center Technology Castle Point au NJ 07030	ctrical and Electronics am Stevens Institute of uf Hudson Hoboken,	Spredzačke Kr. 1400 bis 16:00 Uhr, Mi. 08:00 bis 12:00 Uhr und 14:00 bis 16:00 Uhr und nach besonderer Vereinbarung KVB Stadtbahn Linien 1, 3, 4, 9 Bus Linien 150, 151, 516 S-Bahn Linien 58, S11, S12, S13, S19 sowie RE-/RB- und Ferrwerkehr Haltestelle Bf. Deutz/Messe LANKESS arena
Ihr Schreiben	Mein Zeichen 670/4 Are	Datum 04.04.2018

Anbringung einer Gedenktafel zu Ehren von Christian Daniel Hülsmeyer unweit der Hohenzollernbrücke am linken Kölner Rheinufer

#### Sehr geehrte Damen und Herren,

mit diesem Schreiben möchte ich Sie darüber in Kenntnis setzen, dass auf Vorschlag von Hern Prof. Dr. Wolfgang Koch und Hern Notar a.D. Konrad Adenauer, verschiedene politische Ausschüsse der Stadt Köln die Anbringung einer Gedenktafel zu Ehren von Christian Daniel Hülsmeyer diskutiert und im Dezember 2017 einer Anbringung unweit der Hohenzollenrbrücke an linken Kölner Rheinufer zugestimmt haben. Damit soll im Köln die Erfindung des Radars durch Christian Daniel Hülsmeyer und seine bahnbrechenden Experimente an den Ufern des Rheins im Jahre 1904 gewürdigt werden.

In diesem Zusammenhang muss ich darauf hinweisen, dass die Stadt Köln keine Kosten für die Gedenktafel, deren Anbringung und Folgekosten übernehmen kann. Notwendige Einzelheiten und Finanzierungsfragen sollen daher in einer gesonderten Vereinbarung zwischen der Stadt Köln und der Fraunhofer-Gesellschaft geklärt werden.

Über die baldige Realisierung einer Anbringung der Gedenktafel für Christian Daniel Hülsmeyer würde ich mich sehr freuen.

Für evtl. Rückfragen steht Ihnen Frau Arends gerne jederzeit unter der angegebenen Rufnummer zur Verfügung.

Mit freundlichen Grüßer Im Auftrag

Die Ämter und Dienststellen der Stadtverwaltung finden Sie unter www.stadt-koeln.de. Fragen zu den Dienstleistungen der Stadt Köln beantwortet Ihnen montags - freitags von 7 - 18 Uhr das Bürgertelefon unter der einheitlichen Behördenrufnummer 115 oder 0221/221-0



Start: November 2014 Approval: April 2018

IEEE History: Hugh Spring 2019: Small Radar History Event

IEEE AESS: Hugh, Leo, Wolfgang IEEE APS: Peter Knott Sponsor: Hensoldt



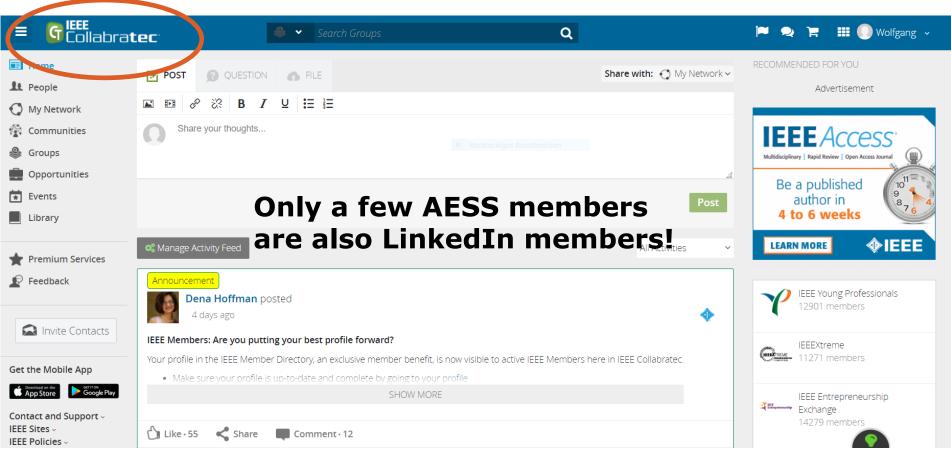


#### **Objective 3** Exploit the Hülsmeyer Event for AESS Awareness in EU

- **S** Create visibility for IEEE AESS in a competing environment
- M Invited AESS event: *Hülsmeyer and Radar's Path to Future* (working title), IEEE APS and Hensoldt, IEEE publication
- A Assigned to: Hugh, Wolfgang, Leo, EU-AESS Chapters
- $\mathbf{R}$  Relevant to all membership goals
- $\mathbf{T}$  BoG Spring Meeting 2019, Cologne, Hyatt by the very bridge



# **Objective Motivation: Professional Networks German AESS LinkedIn group not successful**





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#### **Objective 4** Exploit Social Networks for Intra/Inter Chapter Comms

- **S** Explore **IEEE Collabratec** as a AESS professional network
- M Create local chapter groups: German, Swiss pioneering
- A Assigned to: Wolfgang, membership committee
- $\mathbf{R}$  Relevant to all membership goals
- T Report on experience at the Fall BoG Meeting 2018, Rome



## **Objective Motivation: Member-only Services Advertise Mentoring Program at Class Rooms**

#### Your Invitation

We invite you to participate in AESS networking and mentoring!



Game-changing opportunities for students and young professionals

- Grow professional competencies
- Expand peer networks
- Guidance to achieve career goals

#### Mentoring is a powerful way to give back to the professional community.

- Contribute to IEEE and AESS
- Share knowledge and skills
- Foster community integration







## **Objective 5**

**Encourage Mentoring Program directly in the Class Rooms** 

- **S** Identify IEEE AESS members lecturing at universities
- M Analyze feed-back of university professors
- A Assigned to: Wolfgang, Leo, committee
- **R** 8: Recruit student members
- $\mathbf{T}$  Regular reports during the BoG meetings



### **Objective Motivation: Help Creating Chapters Guidelines – How to Create an AESS Chapter?**

#### IEEE MEMBER AND GEOGRAPHIC ACTIVITIES

#### PLAN OF ACTIVITIES FOR PROPOSED CHAPTER OF THE AESS IN GERMANY

This document provides information for the IEEE GERMANY SECTION (Region 8) on a proposed new chapter of the IEEE Aerospace and Electronic Systems Society (AESS) to be established in Germany.

1. What was the motivating factor that led to forming this geographic unit? What member need will be fulfilled as a result of forming this unit?

German technical universities, research institutions like Fraunhofer and DLR, and a variety of industry companies are for a long time well-accepted global players in the area of aerospace and electronic systems. It thus seems to be quite natural to think of a technical exchange platform for this interdisciplinary engineering community and its specific interests as well as linking it stronger and more institutionally to the other relevant communities and IEEE Chapters, nationally and globally. Although there are related platforms in Germany with a technical specialized focus under the umbrella of the VDI/VDE, such as DGON for navigation and positioning, there seems to be a gap. An "IEEE AESS Germany Chapter" under the umbrella of the well-respected institution of the IEEE would not only strengthen the internal and international ties of the German and US-American colleagues that have been, are, and will be important for German engineering science.

A strong link between the activities of the proposed AESS Chapter and the Board of Governors of the AESS is guaranteed by the Organizer/Interim Chair of proposed chapter, who is a member of this body and Fellow, IEEE.

2. List the activities the unit will focus on for the first six months. What activities will engage the members of the unit with one another?

The new AESS Chapter will focus on the following research and development (R&D) issues that is primarily triggered by presentation / discussion of research results and of industrial needs in 2 annual scientific events that in addition

- provide information of technical achievements to sponsors/decision makers, workshops,
- offer technical tutorials related to these workshops, e.g. by IEEE distinguished lecturers,
- offer a technically focused market for job opportunities (young engineers and scientists),
- provide a link to related activities in the NATO Science and Research Organization (STO),

What accomplishments will this writight to most in its first year?

strengthen personal acquaintance, e.g. facilitating formation of consortia (e.g. public Calls),
 foster societal acceptance of AESS technology in the area of defence, security, UAS.

- IEEE ISS: Inertial Sensors and Systems Symposium. This a two day, one track event with a similar format (Chair: Gert Trommer). For IEEE ISS 2014 see: <u>http://iss.ite.kit.edu/</u>. For the workshop programs since 2007 see: <u>http://iss.ite.kit.edu/past.php</u>.
- DGON International Radar Symposium (IRS). This series of radar symposia has a 17-year historical development under the chairmanship of Hermann Rohling. It started in Munich, Germany, in 1998, and came back to Germany in many years: Berlin (2000, 2005), Bonn (2002), Dresden (2003, 2013), Cologne (2007), Hamburg (2009), Leipzig (2011). 2015 the IRS will be back for a third time in Dresden, Germany. <u>http://www.dgon-irs.org/index.php?id=28</u>.

The idea in forming the new IEEE AESS Chapter is to continue organizing the workshops and to use them as the two natural annual triggering events of the new AESS Chapter, where at least parts of the German aerospace and electronic systems community meet anyway. It is easy to organize technical side meetings before, during, or after the workshops or to add tutorials to be delivered by IEEE Distinguished Lecturers.

#### 4. What level of local support is engaged in support of the unit activities?

At present, 7 technical key areas within the new Chapter have been identified, which are listed below. Representatives from Germany research and industry will take care of them:

Multiple Sensor Data Fusion Navigation Technology Resources Management Unmanned Aerial Systems Aerial Vision Systems Radar Data Processing Electronic Support / Counter Measures Satellite Communications Space Surveillance

The Chapter workshops IEEE SDF and IEEE ISS will also in future be locally organized by Fraunhofer and KIT, respectively. Technical and financial support by the IEEE Germany Section would be highly welcome, i.e. by advertising Call for Papers and distributing information, establishing links to relevant organizations and persons, sponsoring best paper and best student paper awards, social events, invitations of IEEE distinguished lecturers.

5. Approvals for geographic unit plan (signatures required)



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#### **Objective 6 Support Creation of New AESS Chapters**

- **S** Develop a Chapter Creation Process (Germany: problems!)
- M Draft after harvesting experiences of chapter chairs
- A Assigned to: Wolfgang + committee + VPs
- **R** Relevant to all membership goals
- **T** First progress report at BoG Fall Meeting 2018



### **Objective Motivation: Harvest workshops!** Monitor AESS-related activities for new PoCs!

#### Fusion Community trifft sich beim 11. SDF Symposium

Im Universitätsclub Bonn, dicht am Herzen der Universität und ihren kurfürstlichen Gebäuden, fand vom 10. bis 12. Oktober das 11. Symposium Sensor Data Fusion »Trends, Solutions, and **Applications**« statt.

Anfangs unter dem Dach der Gesellschaft für Informatik gegründet, hat sich dieses Wissenschaftsforum zu einem Highlight der internationalen Fusion Community entwickelt, auf dem sie jährlich Forschungsergeb-

nisse austauscht. Die weltweit angesehenste ingenieurwissenschaftliche Gesellschaft, die Institute of Electrical and Electronics Engineers IEEE, ist technical sponsor.

Den über 50 Teilnehmaara ausa dabaa Läa



Programm geboten. In acht thematisch fokussierten, peer-reviewed Sessions verzahnten sich wir enschaftliße Govationen mit spannenden Anwendungsfragen und gaben viel Ramembers Siskussion. Entsprecheparticipating!z aus zivi-len und militarischen Behorden, Industrieunternehmen unterschiedlicher Branchen, Universitäten und Forschungsinstituten.

Wie sehr Datenfusion nicht nur moderne Schlüsseltechnologie, sondern bereichernder

> Zweig der Menschheitskultur wurde, symbolisierte ein Beethoven-Konzert der Pianistin Jamina Gerl. Dank ihrer Freundschaft zu Felix Govaers fand das Ausnahmetalent seinen Weg von der Carnegie Hall über die Tonhalle Düsseldorf in den Llni-



**CALL FOR PAPERS** 

#### Inertial Sensors and Systems

Symposium Gyro Technology

Karlsruhe (Germany) September 19-20, 2017





#### **Objective 7** Identify new scientific / technical events related to AESS

- S Proactively contact organizers to establish links to AESS.
- M Establish a new local AESS event: seed of a new Chapter?
- A Assigned to: Wolfgang + committee + VPs
- $\mathbf{R}$  Relevant to all membership goals
- **T** First progress report at BoG Fall Meeting 2018





#### **Objective Template** One/each using SMART Format

- **S** Statement of the objective
- M Performance metric for measuring progress
- **A** Assigned to:
- $\mathbf{R}$  Relevant to which goal(s) and how?
- **T** Time period for performance

